

## DOCUMENT RESUME

ED 102 797

95

EC 071 592

AUTHOR Stillman, Robert D.  
TITLE Assessment of Deaf-Blind Children: The Callier-Azusa Scale.  
INSTITUTION Callier Center for Communication Disorders, Dallas, Tex.  
SPONS AGENCY Bureau of Education for the Handicapped (DHEW/OE), Washington, D.C.  
PUB DATE 74  
NOTE 9p.; Based in part on a paper presented at Intercom '74 (Hyannis, Massachusetts, March 1974); See EC 071 591 for the scale

EDRS PRICE MF-\$0.76 HC-\$1.58 PLUS POSTAGE  
DESCRIPTORS \*Behavioral Objectives; Behavior Rating Scales; \*Child Development; \*Deaf Blind; Exceptional Child Education; Multiply Handicapped; Student Evaluation; \*Testing

IDENTIFIERS \*Callier Azusa Scale

## ABSTRACT

Described is the development of the Callier-Azusa Scale to assess abilities of low functioning deaf-blind or otherwise multiply handicapped children. Noted is the inappropriateness of most standardized assessment scales for the deaf-blind child due to his sensory impairments and generally delayed language and social development. It is explained that the scale is structured according to normal development and evolved out of the original Azusa scale with which it shares the following subscales: socialization, daily living skills, motor development, perceptual abilities, and language development. Results of a field test of the scale's pilot version with 70 teachers indicated that the scale was most effective when used to assess developmental level and measure developmental progress in low functioning deaf-blind and multihandicapped children. The scale is thought to provide some direction for program planning though direct application of any assessment scale to program planning is considered inappropriate. (DB)

ED102797

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ASSESSMENT OF DEAF-BLIND CHILDREN: THE CALLIER-AZUSA SCALE

by

Robert D. Stillman, Ph.D.  
Research Consultant  
South Central Regional Center for  
Services to Deaf-Blind Children

Callier Center for Communication Disorders

Based in part on a paper presented at Intercom '74

Hyannis, Massachusetts

March 28, 1974

Funded By  
Bureau of Education for the Handicapped  
U. S. Office of Education  
Under Public Law 91-230

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Assessment is an essential component of any comprehensive educational or therapeutic program. Only detailed knowledge of the current behaviors and capabilities of a child can provide a rational basis for planning long-term goals and specific behavioral objectives. Assessment when carried out periodically provides, in addition, a measure of progress and thus a means of evaluating the effectiveness of an individual child's program. A review of available assessment scales indicated the need for development of a scale specifically for use with deaf-blind children. The following paper describes some problems in assessment and measuring progress in deaf-blind children which led to development of the Callier-Azusa Scale.

There are two fundamental, although not mutually exclusive types of assessment scales. The first type are performance-based and include most well-known standardized scales. These scales generally require the child to carry out a requested task often within a specified length of time and are generally the least useful with deaf-blind children.

The major problem with standardized scales is that they were neither designed for nor standardized on deaf-blind children and do not take into account the multiplicity of impairments of the deaf-blind child. For example, most scales assume that communication with the child through auditory or visual channels is possible and that the child has a sufficient language base to comprehend elementary instructions. They also assume social development to the extent that the child will attend

to and interact with the examiner, often a stranger. Finally, these scales frequently include items requiring experiences or knowledge of the environment the deaf-blind child lacks because of his sensory impairments and generally delayed language and social development. The overall result is that whatever abilities the scale purports to measure, it really measures primarily language, social, and experiential factors. Since deaf-blind children are usually most delayed in these areas, the scales unfairly penalize them and, in fact, fail to differentiate between them. Even modification of these scales to make them more applicable for use with deaf-blind children does not help since this invalidates interpretation of results based on norms obtained when the scale was administered according to its original instructions.

Even components of standardized scales which are applicable at least with some deaf-blind children are not easily translated into more effective educational or therapeutic programming. Many scales, for example, must be administered by a specialist (psychologist, speech pathologist, physician, etc.). Thus the specialist must interpret to the teacher the results on the scale. Since a filtering process occurs when the specialist reports his results (i.e. when the specialist decides what the teacher needs to know), the information provided by the specialist may not meet the needs of the teacher. The test results may thus be ignored or misinterpreted and never translated into more effective programming.

There is a second and more applicable type of assessment technique for use with deaf-blind children. This technique relies primarily on observation of spontaneous behavior in structured and unstructured settings.

Assessment based on observation of spontaneous behaviors gives the teacher, as the primary observer, direct responsibility in assessment and is more flexible since observations can be carried out over a period of time in a variety of situations. However, information gained from observation must be reduced and structured in order to be useful.

One means of condensing this information is by the use of behavior check-lists. However, these check-lists must be designed according to a framework which facilitates both translation of the data into programming and a means of determining if changes in behavior represent progress or regression.

The most useful method of structuring behavior check-lists appears to be according to normal development (in developmentally-based check-lists behavioral descriptions are listed in the sequence they appear in normal development). This facilitates measuring progress since it can be readily determined if a change in behavior indicates developmental progress or regression. However, it must also be remembered that use of developmental check-lists to measure progress in deaf-blind children assumes that both the deaf-blind and normal child develop according to the same sequence. At present, there are insufficient data to confirm or refute this assumption.

One attempt to compose a developmentally-based assessment scale relevant to deaf-blind children was the "Azusa Scale" constructed by the staff of the East San Gabriel Valley School for Multi-handicapped Children in Azusa, California.

The Azusa Scale was composed of five subscales: Socialization, Daily Living Skills, Motor Development, Perceptual Abilities, and Language

Development each of which was made up of four Performance Objectives.

Within each Performance Objective were seven steps describing behaviors observed among both normal and multihandicapped children. The behaviors were listed in the sequence they appeared in the development of the multihandicapped children in their program and coincided for the most part with normal development. There were major advantages to this scale for assessment. It was concise but encompassing, easy to administer, simple to score, and was designed to be used without specialized knowledge other than familiarity with the child.

The Callier-Azusa Scale began as an attempt to revise the original Azusa Scale. It is now, however, essentially a new instrument retaining only the original subscale areas and the basic premise that when provided appropriate educational and therapeutic opportunities, all children develop according to the same sequence.

The Callier-Azusa Scale was compiled and written by members of the staff of the Callier Center including classroom and home program teachers, psychologists, speech pathologists, physical and occupational therapists, and others all of whom had two or more years direct experience with deaf-blind children. Familiarity with deaf-blind children among those compiling the scale was considered essential to assure that the items included would describe normal developmental milestones observable among deaf-blind children. In addition, these people were able to facilitate the feed-back procedure so that as each subscale was completed, it could be classroom tested, revised on the basis of the pilot test, sent back to the classroom,

and re-revised as necessary.

The Callier-Azusa Scale is composed of subscales which are particularly comprehensive at the lower levels. It should, therefore, be especially applicable to low-functioning deaf-blind children for whom other assessment instruments are inappropriate. Higher level behaviors were not included in most subscales since deaf-blind children functioning above the 6 or 7 year level can be adequately assessed by other means.

An innovation of the scale was to preface certain items with "may". These items describe behaviors dependent on the intactness of specific sensory or motor systems not intentionally assessed by that particular subscale. A child is expected to exhibit behaviors prefaced by "may" only when the teacher considers it appropriate for that child. Thus, the scale is somewhat flexible in assessing the heterogeneous population of deaf-blind and multihandicapped children and avoids penalizing the child in many areas because of a specific impairment in one. This, along with minimizing the importance for language competence in non-language subscales are features of the scale designed to prevent incorrect assessment leading to inappropriate planning for the child.

A pilot version of the Callier-Azusa Scale was field tested over the past year both within and outside the Region. Questionnaire responses and interviews of a total of 70 teachers who used the scale indicated that the Callier-Azusa was most effective when used to assess the developmental level and measure developmental progress in low-functioning deaf-blind and multihandicapped children.



The Callier-Azusa Scale can also provide some direction for program planning. However, the use of the use of any assessment scale for program planning is considered inappropriate for several reasons. In normal development, the acquisition of a specific ability or the appearance of a behavior described on an assessment scale implies general growth; the newly acquired behavior is simply a sign of this overall growth. However, when a child's educational program is geared toward attainment of skills and behaviors described in the scale items, their attainment may, in fact, be independent of overall growth, for example, they may be conditioned responses. Thus the scale cannot be said to provide an independent measure of developmental level and instead may simply record the attainment of particular behavioral objectives.

A second problem results from the fact that scale items are often designed to permit independent assessment of some skill without contamination by contextual cues. For example, assessment of visual or tactile ability often involves matching geometrical shapes rather than real objects. However, classroom activities designed to teach geometrical shape matching or use of form boards in isolation from those environmental situations where shape matching is important (selecting clothes, table setting, etc. . .) could result in a child whose performance on the assessment scale is excellent, but whose ability to generalize these skills to everyday life is poor.

Third, use of assessment scale items as the basis for educational programming leads to the imposition of identical activities and objectives for all children. To do this rather than to individualize programs to the



needs of the child is to ignore in program planning both the learning style and the diversity of impairments among deaf-blind children.

Finally, reliance on assessment scales for program planning will result in fragmented programs since distributing behaviors among "independent" subscales is to some extent artificial. In addition, some areas of behavior including cognitive abilities such as problem solving, memory, and sequencing are not separately covered in the Callier-Azusa Scale, yet are critical to the overall development of the child. One must be aware of these major shortcomings in the use of assessment scales as teaching programs.

Assessment scales such as the Callier-Azusa should provide two types of input to the teachers: a description of the child's level of development and a measure of the child's progress for evaluation of program effectiveness. Goals, objectives, and program plans are the responsibility of the teachers and teachers should be encouraged to maximally use their creativity to plan and implement programs leading to developmental progress among their children.